

SCOPE OF CLAIMS

[1] A method for producing polyurethane emulsion for an aqueous one-component coating agent, comprising:

reacting an organic diisocyanate (a1), a high molecular weight polyol (a2) and a low molecular weight glycol containing a carboxyl group (a3) to produce an isocyanate-terminated urethane prepolymer having a carboxyl group (A);

mixing the urethane prepolymer (A) with a polyisocyanate containing a nonionic polar group (B);

neutralizing the carboxyl group in the system with a neutralizing agent (C); and

subjecting the mixture to emulsification in water and chain extension with water.

[2] A method for producing polyurethane emulsion for an aqueous one-component coating agent, comprising:

reacting an organic diisocyanate (a1), a high molecular weight polyol (a2) and a low molecular weight glycol containing a carboxyl group (a3) to produce an isocyanate-terminated urethane prepolymer having a carboxyl group (A);

mixing the urethane prepolymer (A) with a polyisocyanate containing a nonionic polar group (B);

neutralizing the carboxyl group in the system with a neutralizing agent (C); and

subjecting the mixture to emulsification in water and chain extension with an amine.

[3] The production method according to claim 1 or 2, wherein the organic diisocyanate (a1) is an aliphatic diisocyanate and/or an alicyclic diisocyanate.

[4] The production method according to any one of claims 1 to 3, wherein the high molecular weight polyol (a2) has a carbonate skeleton.

[5] The production method according to any one of claims 1 to 4, wherein the polyisocyanate containing a nonionic polar group (B) is an isocyanurate modified product, or a composite modified product including isocyanurate modification, of an aliphatic diisocyanate and/or an alicyclic diisocyanate.